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#### AMENDMENTS TO THE CLAIMS:

Because the amendments presented in Applicants' Response to Final Office Action filed on April 17, 2006 were not entered, Applicants hereby present the following amendments to place the application in condition for allowance:

Claims 1-28 were pending at the time of the Office Action.

Claims 1, 3, 4, 5, 8, 13, 15, 18, 21, 23, and 26 are hereby amended.

Claims 2, 14, and 22 have been canceled.

1. (Currently Amended) A method of simulating a volume of liquid within a tank during motion, comprising:

receiving tank geometry information;

receiving sensor configuration information;

generating receiving tank motion information;

computing one or more fuel-plane-to-sensor intersections for at least one tank position based on the tank motion information;

computing one or more wetted volumes, each wetted volume being computed at a fuel-plane-to-sensor intersection for each sensor location based on the sensor configuration information; and

computing a fuel quantity at every fuel-plane-to-sensor intersection based on a sum of the one or more wetted volumes;

computing an error for each computation of fuel quantity; and

gathering all error information for all computations and extracting the maximum error found for each fuel-plane-to-sensor intersection.

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CUSTOMER NUMBER